Expanding the Scope of Universal Basic Education (UBE) Programme from 913 Years: Implication for Basic Science

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Universal Basic Education aims at providing full and compulsory Education for primary 1 to upper basic (JSS3) Education. Its extension to senior secondary school level of Education will help to achieve the eradication of illiteracy, promote scientific advancement and skils for self-reliance. Therefore, this paper focuses on UBE and Basic Science as the introduction, nature and objectives of Basic Science, rationale for expanding Basic Science curriculum to 13 years. Recommendation for successful extension was made as well as are funding of the programme, provision of enough qualified Basic Science teachers, organising conferences, seminars and workshops for the teachers.

Introduction

UNICEF (1993) defines UBE as the type of education in quality and content that is given at the first level of education in Nigeria. It is equated with six years of primary schooling and three years of junior secondary education. Badamasi (2006) sees it as the bedrock upon which formal educational system, as well as the fundamentals upon which other levels of education are built. It is the foundation for sustainable lifelong learning (UNESCO, 1995).

Universal Basic Education came to existence in September 1999 with the aim of providing full and compulsory education for primary through junior secondary schools (JSS3). Following the world declaration on Education for All (EFA) and the framework for action to meet basic learning need at the world conference held in Jemitien 1990, Nigerians' dream for eradication of illiteracy was awaken (Ugwu& Ado, 2012).

Having joined other countries in being a signatory to a number of international declarations to be achieved by 2015; UBE programme was introduced as a means of achieving this goal. This programme is not entirely new, but has been broadened to include junior secondary school 1-3 which similar programme Universal Primary Education (UPE) introduced in 1976, did not include.

The Nigerian Government FGN (2004) views UBE as the acquisition of the appropriate levels of literacy numeration, manipulation and life skills as well as ethical, moral and civic value that are needed for laying the foundation for lifelong learning, it states inter alied that UBE shall be 9 years duration comprising 6 years of primary education and 3 years of junior secondary education. It shall be free and computer based. It also include adult and non-formal education programme at

primary and junior secondary education level for the adult and out of school age child.

The objectives of UBE include the following:

i. Development of the entire citizenry a strong consciousness for education and strong commitment to its vigorous promotion;
ii. The provision of free compulsory universal basic education for every Nigeria child of school going age; iii. Reducing drastically the incidence of drop-out from the formal school system (through improved relevance, quality and efficient);
iv. Catering for the learning needs of young persons who, for one reason, or another, have to interrupt their schooling through appropriate forms of complementary approaches to provision and promotion of basic education; and
v. Ensuring the acquisition of appropriate levels of literacy, numeracy, manipulative, communicative and life skills as well as the ethical, moral and civic values needed for laying a solid foundation for lifelong learning (UBE, 2003)

At the UBE, Science Educationarea is found in mathematics, Basic Science and Technology, Agricultural Science, Physical and Health Education, Computer Science, and Home Economics. Basic Science is an aspect of Science Education

Nature and Objectives of Basic Science

Basic Science consists of revised and restricted primary and junior secondary school curriculum of Integrated Science, (Federal Ministry of Education (2007; Udofia & Dauda, 2010).

According to FME (2007), in selecting the contents of the Basic Science and Technology, three major issues shaping the development of nationwide and influencing the world knowledge today were identified.They are Globalization, Information and CommunicationTechnology and Entrepreneurship. The desire that Nigeria be identified with cotemporary development worldwide called for the infusion of relevant content of four approved curriculum innovation in the area of:

i. Environmental Education ii.
Drug Education iii.
Population and FamilyEducation
iv. Sexually Transmitted Infections

The infusion of content occurred in every class from basic 1-9. Also Introductory Technology topics have been introduced at the lower and middle levels while leaving the upper level with purely Science topics.

The curriculum has the following objectives; to enable the learner to

i. Develop interest in Science and Technology; ii. Acquire basic knowledge and skills in Science and Technology; iii. Apply their scientific and technological knowledge and skills to meet societal needs;

iv. Take advantage of the numerous career opportunity offered by Science and Technology;

v. Become prepared for further studies.

Four themes were used to cover knowledge skill and attitudinal requirement and these according to NERDC (2007), include: i. You and your Environment

ii. Living and Non-living things iii. You and Technology

iv. You and Energy

The theme, Science and development, is added to expose students to development in Science and Technology alongside with skills that enable them to face challenges, make informed decision, develop survival strategies and learn to live effectively within the global community (Udofia&Salomi,2012).

The UBE outlined different strategies for attainment of these objectives which included:

i. Free and compulsory education from the pre-primary to junior secondary schools;

ii. Provision of educational programmes (formal & informal) for out of school youth and adults; and

iii. Provision of educational programme for nomads and migrant fishermen etc.

Therefore UBE is more than just classroom interaction but avenue of training the Nigerian children as well as adults to acquire appropriate basic literacy, numeracy and life skills for relevant and natural development.With these strategies extending UBE from 9 to 13 years, Basic Science will be of great benefit if properly implemented.

The Rationale for Extending Basic Science to Senior Secondary School

According to Adikwu(2008), one of the basic ideas behind curriculum provision is to enable children pass through sets of formative deeds and experiences that will make them useful and responsible adults in the society. It equally intends that

children should exercise, enjoy themselves and contribute meaningful living through creativity and interaction with the environment. These, coupled with the outlined objectives, call for the extension of Basic Science Education to senior secondary school.

These are the rationales for extending the Basic Science from 9-13 years

i. Basic Science teaching has inbuilt strategies where the learners are required to be involved in inquiry related activities that can develop critical thinking skills of which the 9 years programme may not be enough to fulfil adequately. Therefore, extending the programme to 13 years will create enough period for the fulfilment of these objectives.
ii. The broad structure of Basic Science curriculum embraces not only the traditional science subject field but also some contemporary issues such as environmental education, Reproductive Health Education, Sexually transmitted infections (HIV/AIDs), Space Technology and Entrepreneurship Education. Although these broad curriculums lack cognitive depth, the content will invariably provide the Nigerian child, the needed foundation for future specialization in science and allied field (Kamar & Matazu, 2012). Extension of Basic Science programme to 13 years will automatically help to go beyond building the foundations for Basic Sciences to become real scientist. Also, the extension will give room for cognitive depth;
iii. The bits of scientific knowledge and skills they acquire would also enable them face the challenges, develop self survivalstrategies and live functionally in the global communities (UBE, 2004). Extending the scope of Science Education to 13 years will bring this to reality.
iv. Basic ScienceEducation may be the highest form of scientific knowledge (Aba, 2006), some Nigerians may be exposed to informal education as a good number of students may not go beyond the junior secondary school level and many who go beyond this level may offer other courses. Extending Basic ScienceEducation to 13 years will help many to offer it in senior secondary school.
v. It will serve as a motivational factor for students. Extension of basic Education as a course will go a long way to generating students' interest for the course since they know they will have opportunity to pursue or do the same course at the higher institution.
vi. In achieving the objectives of Basic Science, if the students are to acquire knowledge and basic skills in science and technology, there should be

extension in the duration from 9 years to13 years of study when they will be exposed to practical aspect of what they have learnt previously

vii. The Basic Science knowledge acquired for 9 years may not be enough to meet the social need, more so that some will fall out of the course after the JS3 class. Therefore, if Basic Science is extended to senior classes, enough knowledge to meet societal challenges would have been acquired before they leave the secondary school system.

viii. For continuity of the course in tertiary institutions; extending the basic science as a course in senior secondary school will give the student the opportunity to study it as a course in the higher institution and the problem encountered by students as a result of specialization in Physics, Chemistry and Biology will be eradicated.

ix. For career in basic science,the study of Basic Science as a course of study from Basic1-13 and tertiary level will bring about specialists who will be competent in teaching of Basic Science for the achievement of the stated objectives.

Recommendations

For success in the extension of Basic Science to senior secondary school level, the following recommendations are made

i. Government should release sufficient grant to be in-line with the extension of the programme. ii. More qualified Basic Science teachers should be made available for the extension programme.

iii. Career development for Basic Science teachers should be considered very important for competence in their fields of specialization.

iv. The government should build Science laboratories in schools where they are not available and equip them with modern scientific equipment. Old ones should be replaced where necessary. Laboratory Assistants should be employed to assist the Basic Science teachers in practical activities.

v. Relevant Science textbooks should be provided by the government to the students.

vi. There should be adequate monitoring to see to the effective use of the laboratory and textbooks in both primary and secondary schools.

vii. Basic Science teachers should be remunerated and given conditions of service like welfare packages, practical allowances.

viii. Conferences, workshops and seminar should be organised for Basic Science teachers on regular basis.

ix. Basic Science teachers should be encouraged to participate in professional development programme organised by professional bodies like STAN, NSTA etc. The government should give them financial support for attendance of the professional programmes (conferences, seminars, workshop etc).

x. The practice of mentoring should be introduced in primary and secondary schools for effective delivery of knowledge.

Conclusion

Universal Basic Education is the bedrock for live-long development and foundation upon which other levels of education is built. If this life-long development will be achieved, the government and education stakeholders should therefore see it as a challenge to extend this Basic Science education to the senior secondary schools. By so doing, the aim and objectives of UBE will be achieved.

More so, all hands must be put on deck to ensure that the recommendations made in this paper are properly addressed and implemented.

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